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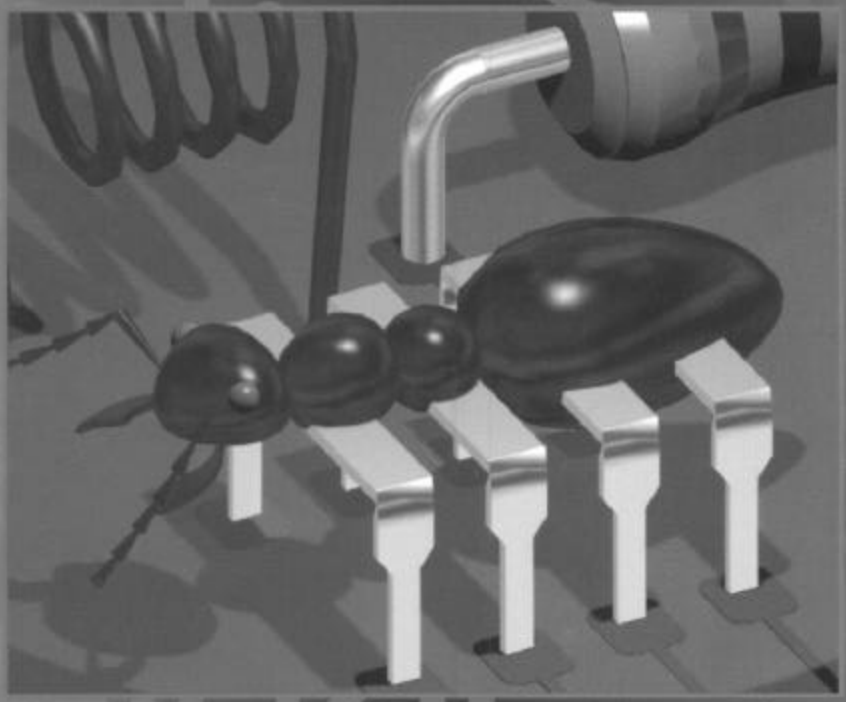
Electronic Surveillance Devices



Paul Brookes

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Preface

Since humans first communicated, the thirst for information has never been quenched. The importance, and value, of information can never be understated. There cannot be many people who have not wished, at some point in their lives, to be 'a fly on the wall', to know for certain what has been said, or what has taken place.

Electronic surveillance has been used for many years, the first case being the use of simple hard-wired microphones placed near the enemy trenches, to enable the listener to be aware of troop movements, and imminent attack. During the Cold War, the flow of anecdotes and rumours about the use of surveillance devices ranged from the sublime to the ridiculous. Inspired by these anecdotes, a new breed of electronics enthusiasts began designing their own devices, often having the designs published in enthusiast magazines. This phenomenon happened at the same time as a relatively new invention, the bipolar transistor, became available to the general public. Although very expensive, in short supply, with only a few device types available, the small transistor would soon replace the old fashioned, large, energy-hungry thermionic valve, now left on the shelf. With the transistor, which would work on a supply from a battery instead of bulky mains supply transformers, it was possible to build small circuits that could operate as amplifiers, switches and transmitters.

Armed with the new miniature electronic components, the designer was able to build smaller and smaller circuits. The race was now on, to build smaller and more efficient devices. Units, designed to act as audio transmitters, were disguised as (inedible) olives, with rather ambitious quotes for transmission range. Inspired by the large number of techno-spy movies, devices appeared in many other disguises and forms such as transmitters inside shoe heels, microphones in buckles and brooches, etc.

Soon afterwards, in certain countries, a cry was heard that these non-official surveillance devices were being used by many people or groups, whose aim was to obtain information that they were not supposed to have. This lead to a strict and severe clampdown on the manufacture, use and sale of devices specifically intended for monitoring or intercepting conversations. Governments introduced new privacy laws to help cope with the growing problem of unauthorized electronic intrusion. Some loopholes in legislation did

appear at one point, with a few manufacturers hastily tearing off the labels of 'secret transmitters' and replacing them with 'baby monitor' stickers, re-naming 'automatically switching telephone to tape recorder' as 'telephone secretaries', etc.

Since this time, when miniature electronics was in its infancy, electronic surveillance has matured into big business, with applications for the numerous range of devices in many walks of life. This book is intended to educate and inform anyone who is involved in the security of premises, or the security and protection of others or themselves. Several chapters of this book describe the circuit diagrams of several devices that can be used for surveillance. These diagrams have been included as information both for the electronic engineer who is involved in the development of security devices, as well as to show security personnel the type of devices available, and how they function. To make the book even more helpful to security personnel, a complete chapter has been devoted to the topic of counter-surveillance devices and techniques. The last chapter has been included to make the reader think hard about security, and perhaps make some aware of the potential danger of giving information freely and accidentally. With regards to surveillance, although some people may cry out '1984', many people feel safer when parking in an area that has full video protection, or understand that they live better lives with the knowledge that electronic surveillance is being used as one of the tools against crime.

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This book will have something of interest for a large number of people from anyone involved in corporate security or surveillance to gadget enthusiasts. As a reference book which balances theoretical principles with practical instruction, **Electronic Surveillance Devices** meets the needs of this wide audience.

Chapter One is an introductory chapter outlining why various types of equipment are used, illustrated with two case histories. *Chapter Two* describes all types of device available, their performance and potential uses. The

s and construction
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equipment.

ecording switches;

es such as *Practical*
nal. For many years
kits for hobbyists

remainder of the book deals with actual circuit diagram
techniques of various transmitters, recording swit
surveillance devices, and provides information on receiving

Contents: Introduction; Equipment; Types of device; R
Counter surveillance techniques; Receiving equipment

Paul Brookes has written several articles for magazin
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